

CLAIMS

1. A protein which comprises an amino acid sequence from first Asn to 123rd Cys of that shown in SEQ ID No.: 30.

5 2. The protein as claimed in claim 1 which comprises an amino acid sequence from - 19th Met to 123rd Cys of that shown in SEQ ID No.: 30.

3. A protein which comprises the amino acid sequence of claim 1 or 2, in which one or more amino acid residues are substituted, deleted, inserted or added, and has a phospholipase A₂ activity.

10 4. A DNA which encodes the protein as claimed in any one of claims 1, 2 and 3.

5. The DNA as claimed in claim 4 which comprises a base sequence from 116th A to 484th C of that shown in SEQ ID No.: 29.

15 6. The DNA as claimed in claim 5 which comprises a base sequence from 59th A to 484th C of that shown in SEQ ID No.: 29.

7. A DNA which hybridizes to the DNA as claimed in claim 5 or 6 under the stringent condition and encodes the protein having a phospholipase A₂ activity.

20 8. An expression vector which has the DNA as claimed in any one of claims 4 to 7.

9. A transformant which is obtained by inserting the expression vector as claimed in claim 8 to a host.

10. The transformant as claimed in claim 9 wherein the host is a mammalian cell line.

25 11. A method for producing a protein which comprises a step of the culture of the transformant as claimed in claim 9 or 10 and a step of recovering the protein as claimed in any one of claims 1, 2 and 3 from the

culture.

12. An antibody which specifically recognizes the protein as claimed in any one of claims 1, 2 and 3.

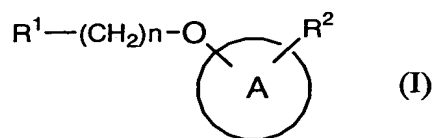
13. A diagnostic agent for secretory type phospholipase A₂-related diseases, which comprises the antibody as claimed in claim 12.

14. An assay kit for secretory type phospholipase A₂, which comprises the antibody as claimed in claim 12.

15. A therapeutic agent for secretory type phospholipase A₂-related diseases, which comprises the antibody as claimed in claim 12.

16. A screening method of a compound that specifically inhibits a secretory type phospholipase A₂ activity with the protein as claimed in any one of claims 1, 2 and 3.

17. A composition for use as a IIE type phospholipase A₂ inhibitor containing, as an effective ingredient, a compound of the formula (I):



wherein A ring is optionally substituted carbocycle, or optionally substituted heterocycle;

R¹ is -COOH, -SO₃H, or -PO(OH)₂;

R² is -COCONH₂, -CH₂CONH₂, or -CH₂CONHNH₂;

n is an integer of 0 to 6,

which is obtained by the screening method as claimed in claim 16.

18. The composition as claimed in claim 17 wherein the IIE type phospholipase A₂ is the protein as claimed in any one of claims 1, 2, and 3.